

**Notice of Allowability**

Application No.

10/082,865

Examiner

Eric S. McCall

Applicant(s)

KOPPE ET AL.

Art Unit

2855

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Applicant's Appeal Brief dated June 08, 2004.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 19 October 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Eric S. McCall  
Primary Examiner  
Art Unit: 2855

## **TOMOSYNTHESIS IN A LIMITED ANGULAR RANGE**

### **REASONS FOR ALLOWANCE**

The following is an Examiner's statement of reasons for allowance:

In view of the Applicant's arguments as presented in the Appeal Brief, claim 1 has been found to be allowable over the prior art because the prior art fails to teach or suggest, as argued by the Applicant, forming an X-ray layer image directly from the X-ray projection images without creating an intermediary three-dimensional data set, the formed X-ray layer image being situated in a plane which extends essentially perpendicularly to a bisector of the angular range; wherein the angular range of displacement is less than 180 degrees.

In view of the Applicant's arguments as presented in the Appeal Brief, claim 13 has been found to be allowable over the prior art because the prior art fails to teach or suggest, as argued by the Applicant, an image processing unit for forming an X-ray layer image from the X-ray projection images; and

wherein only X-ray projection images in an angular range of less than 180 degrees are acquired in order to form the X-ray layer image; and

wherein the image processing unit forms the X-ray layer image directly from the X-ray projection images without creating an intermediary three-dimensional data set, where the formed X-ray layer image is situated in a plane which extends essentially perpendicularly to a bisector of the angular range.

In view of the Applicant's arguments as presented in the Appeal Brief, claim 16 has been found to be allowable over the prior art because the prior art fails to teach or suggest, as argued by the Applicant, a method of forming an X-ray layer image of an object with an X-ray device having an X-ray source and an X-ray detector, comprising the steps of:

displacing the X-ray source and the X-ray detector over a less than 180 degrees angular range around an object being examined in order to acquire less than 100 X-ray projection images; and

forming at least one X-ray layer image directly from the less than 100 X-ray projection images without creating an intermediary three-dimensional data set, the formed X-ray layer image being situated in a plane which extends essentially perpendicularly to a bisector of the angular range.

All other claims have been found allowable over the prior art due to their dependency on one of the above claims.

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**CONCLUSION**

Any comments considered necessary by the Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric S. McCall  
Primary Examiner  
Art Unit 2855  
July 30, 2004